

5/11/21

Dr. Kenneth W. Regan 162 Maynard Drive Amherst, NY 14226-3368

Subject: US Chess Federation Letter of Endorsement of Professor Kenneth W. Regan's Fair Play Analysis Methodology

With this letter the US Chess Executive Board endorses the fair play analysis methodology developed and used by Professor and International Master Kenneth W. Regan to identify possible cheating in online and over-the-board games of chess. US Chess approves the use of Dr. Regan's methodology by tournament directors (TDs) and organizers to conduct post-event analysis of games played by US Chess members. US Chess highlights that Dr. Regan's technique differs from methods already endorsed by US Chess. Such differences do not mean one method is superior to another; rather, it simply indicates that fair play algorithms have an array of data they can use. *Accordingly, US Chess strongly advises caution by anyone attempting to compare results from Dr. Regan's method with the output of other approaches*. This endorsement shall remain in effect until removed by US Chess or superseded by an updated endorsement.

US Chess is deeply concerned about the potential for violations of fair play in rated chess events—online and over the-board. Therefore, to reassure members and provide TDs and organizers with information about possible violations of fair play, US Chess formed a special subcommittee of the US Chess Ratings Committee to review the approaches being used in the chess industry. As regards Prof. Regan's methodology, we share the following words from the subcommittee's findings:

"His process provides unique capabilities not available from the methods used by other vendors. Because Dr. Regan's method is not tied to a single vendor it provides a pathway for external review of vendor results and reviews of games not played online. A strong advantage of his method is that the algorithm has been published in the public domain. His method is well tested and used extensively around the world. He is conservative in the threshold he uses for determining cheating and thus the expected false positive rate is at or below that of other methods. His method intrinsically generates a performance rating for a given game that can be used during appeals. Because his method compares the move selection distribution of a player to the expected distribution for players of that rating, it can potentially detect assistance from higher rated players. This is a form of fair play violation that some other methods have a problem finding."

US Chess shall continue its outreach to review the fair play methods other parties offer for deterring and detecting cheating. We encourage interested individuals to contact US Chess.

US Chess has not received any fee or compensation for this endorsement, nor has any member of the subcommittee who participated in the assessment. Additionally, this endorsement does not modify in any way the right of a US Chess member accused of having violated fair play to receive due process by having their case heard through the Ethics process, and/or other US Chess claims processes, and to review the evidence against them. The fact that a fair play detection approach identified a player as having not played fairly may or may not be sufficient to sustain a charge that the accused player violated the US Chess Code of Ethics.

For the Executive Board,

Michael E. Hoffpauir President, U.S. Chess Federation